

*** Work Order ID 86065**

86065

Page 1

Item ID: D2500-1-100

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Skidtube Extrusion

Start Date: 20/06/2012 Start Qty: 90.00

Required Date: 11/07/2012 Req'd Qty: 90.00

Cust Item ID:

Customer:

Reference:

Approvals: Process Plan: *MLJ*

Date: *12/06/20* Tooling:

Run Start ***NR1***

QC:

Date: SPC (Y/N):

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2500	RevH								
100		0.00							
100	PURCHASING								
Purchasing	Memo	0.00							
Purchasing	Issue P/O: <i>17283</i>								
	a) Extrude as per Dwg D2500								
	b) Material: 6061-T6 (QQ-A-200/8)								
	c) Minimum yield tensile strength = 35 ksi								
	d) Minimum ultimate tensile strength = 38 ksi								
	e) Minimum elongation = 8%								
	f) Order at 100" long								
	g) Bon L Canada Inc. tool # 897105								
	h) To be packed per DSK 066								
	i) Pull test to ASTM standard B221 required.								
	j) Material certification is required								
110	Receive & Inspect for Damage & Mat'l Certs	0.00							
110									
Packaging	Memo	0.00							
Packaging	Ensure material certification is attached								

CL 12/06/22 (90)

102 x 128-22

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 86065

86065

June-20-12 12:52:24 PM

Item ID: D2500-1-100

Accept

N900040100

Setup Start *NS1*

Revision ID:

Item Name: Skidtube Extrusion

Stop *NS2*

Start Date: 20/06/2012 Start Qty: 90.00

90

Cust Item ID:

Required Date: 11/07/2012 Req'd Qty: 90.00

90

Customer:

Reference:

Approvals: Process Plan: Date: Tooling: Date: Run Start *NR1*
QC: Date: SPC (Y/N): Date: Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

120 QC6- Inspect dimensions to drawing

0.00

120

QC

Quality Control

Memo

Check Pull test per Dwg D2500 for compliance page attached. Check hardness with Webster tester

0.00

130

Identify as per dwg & Stock Location: Back Hall

130

Packaging

Packaging

Pull at 20 pcs. For ac inspecting

Memo

0.00

140

QC21- Final Inspection - Work Order Release

0.00

140

QC

Quality Control

Memo

0.00

102
25/06/12

102 & 12/09/05

12/9/11

11/20/10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

2.2

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86065

D2500-1-100

Required Date: 11/07/2012

Required Qty: 90.00

Page 1

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2500-1-100P		Purchased	No			110	Each	0.0000	1	90102			
D2500-1-100P									**				
Skidtube Extrusion											102	8p12-8-22	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

SPECIFICATION CONTROL DRAWING

D2500-1-XXX EXTRUSION & D2500-3-XXX EXTRUSION

NOTES:

1) MATERIAL: 6061-T6 ALUMINUM PER QQ-A-200/8 OR AMS-QQ-A-200/8 OR ASTM B221

MINIMUM TENSILE YIELD STRENGTH = 35 KSI
MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI
MINIMUM ELONGATION = 8%

A SAMPLE FROM EACH BATCH WILL BE PULL TESTED TO ASTM STANDARD B221 BY AN APPROVED TESTING FACILITY TO ENSURE THAT THE BATCH MEETS THE ABOVE MINIMUM MECHANICAL PROPERTIES

2) FINISH: N/A

3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX

6) IDENTIFICATION: IDENTIFY WITH DART B/N USING FINE POINT PERMANENT INK MARKER

7) WEIGHT: D2500-1 = 0.143 lb/in, D2500-3 = 0.066 lb/in

8) FOR D2500-1 PART NUMBER IS D2500-1-XXX WHERE XXX IS CUT LENGTH (EX. D2500-1-190 IS 190" LONG). D2500-1 EXTRUSION MANUFACTURED FROM:

- A) BON L DIE # 897105 -> PREFERRED
- B) CARADON MIDEAST DIE # PAH-28030
- C) CARADON MTL DIE # MH-18868

9) FOR D2500-3, PART NUMBER IS D2500-3-XXX WHERE XXX IS CUT LENGTH IN INCHES (EX. D2500-3-100 IS 100" LONG). D2500-3 EXTRUSION MANUFACTURED FROM:

- A) CARADON INDALEX DIE # MS-18867

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT

WITHOUT NOTICE
WORK ORDER

NO. 86065 *MLJ*
12/06/20

RELEASED
2010-02-02
MP

H	REDRAW & REFORMAT DWG; CORRECT BON L DIE # TYPO (ZN B8-1), ADD AMS & ASTM MAT'L OPTION (ZN D8-1), TOLERANCES NOW PER CARADON DWG (SHT 2)	CP	09.07.16
G	ADD DIE NUMBERS & 'DIMS IN INCHES' NOTES	PH	07.04.17
F	CHANGE MAT. TO 6061-T6	DS	97.09.29
E	CHANGE MATERIAL TEMPER	DS	96.10.24
D	ADD MATERIAL PROPERTIES	DS	96.10.07
C	ADD D2500-3 WEB	BW	96.04.26
B	CHANGE INTERNAL WEB	DS	96.03.24
A	NEW ISSUE	DS	96.03.19
REV.	DESCRIPTION	BY	DATE
DESIGN	<i>4</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	<i>4</i>		
CHECKED	<i>PH</i>	DRAWING NO.	REV. H
MFG. APPR.	<i>ND</i>	D2500	SHEET 1 OF 2
APPROVED	<i>ND</i>	TITLE	SCALE
DE APPR.	<i>4</i>	EXTRUSION	NTS
DATE	09.07.16	<small>COPYRIGHT © 1996 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

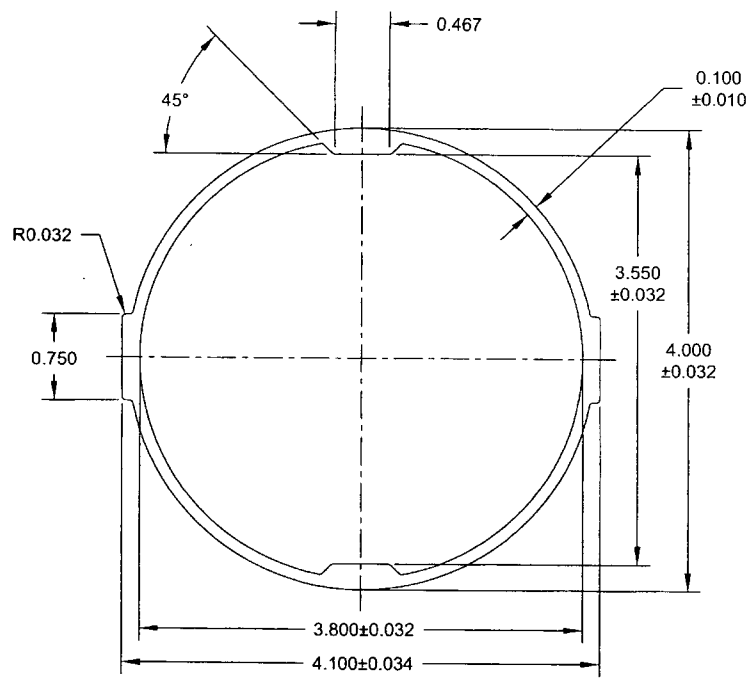
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

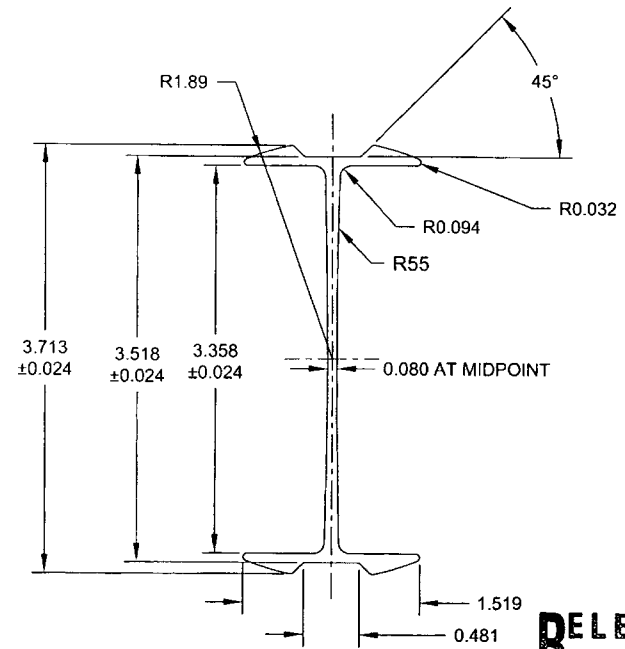
NOTE: Date & initial all entries

8 7 6 5 4 3 2 1

26065



D2500-1



D2500-3

RELEASED
2010-02-02
MJP

DESIGN	4	DART AEROSPACE LTD	
DRAWN	97	HAWKESBURY, ONTARIO, CANADA	
CHECKED	PH	DRAWING NO.	REV. H
MFG. APPR.	NS	D2500	SHEET 2 OF 2
APPROVED	MJP	TITLE	SCALE
DE APPR.	NS	EXTRUSION	NTS
DATE	09.07.16	<small>COPYRIGHT © 1998 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

8 7 6 5 4 3 2 1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Signature
aluminum
CANADA INC.

ACCT# 46024

INVOICING AND COMPANY LOCATION

SIGNATURE ALUMINUM CANADA
1850 CLEMENTS ROAD
PICKERING ON L1W 3R8

SHIPPING MANIFEST

MANIFEST DATE / DATE DU BODEREAU
08-19-12

MANIFEST NUMBER / N° DE BODEREAU
007109

SALES ORDER NUMBER / N° DE COM
106320

REFER TO
THE NUMBERS ON
ALL CORRESPONDANCE

REFEREZ-VOUS A CES
NUMEROS POUR TOUTE
CORRESPONDANCE

TERMS / FREIGHT

PP

SHIP TO / EXPÉDIÉ À DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 CANADA PHONE: 613-632-5200				SOLD TO / VENDUE À DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 CANADA PHONE: 613-632-5200				LOCATION PIC		TRAILER NUMBER / REMORQUE Nombre 5300		SALESMAN / VENDEUR 042		CREDIT REP / REP DU CRÉDIT		SALES REP / REP. DES VENTES G.ATTENBOROU	
CUSTOMER ID / ID DU CLIENT 46024		ORDER DATE / DE LA COM 06/25/12		CUSTOMER PO NUMBER / CLIENT PO Nombre 17283				JOB / FICHIER				FIELD SALES REP / REP REGIONAL DES VENTES G.ATTENBOROU		CUST SERVICE REP / REP. SERVICE CLIENTELE DLB			
				BILL OF LADING NUMBER / NO. DE CONNAISSANCEMENT 007109				CARRIER / TRANSPORTEUR JODEE									
ITEM NO. / NUMÉRO	ORIGINAL ORDER QUANTITY / Quantité d'ordre ORIGINAL	UNIT / UNITÉ	PREVIOUS SHIPPED QUANTITY / PRÉCÉDENT Quantité livrée	MFG. PART NUMBER / MFG. PARTIE NUMÉRO	ALLOY & TEMPER / ALLIAGE & TEMPER	FINISH DESCRIPTION / DESCRIPTION DE FINITION	NBR OF PKGS / NBR DE PKGS	GROSS LBS / LIVRES BRUT	NET QUANTITY / QUANTITÉ NETTE	UNIT / UNITÉ	QUANTITY DUE / Quantité en raison						
001	1,270 LB 576 KG 90 PC			DAA-897105-3 D2500-1-100	6061 T6 100.0000 IN		5	1,455 660	1,380 LB 626 KG 102 PC								
<p>102 x 8P 12-8-22 Cut(+): 0.1180 Cut(-): 0.0000 Min: -10 % Max: 10 %</p>																	
						814268 / 150325	1	326	311		23 PC						
						814268 / 150326	1	326	311		23 PC						
						814268 / 150327	1	326	311		23 PC						
						814268 / 150328	1	326	311		23 PC						
						814268 / 150329	1	150	137		10 PC						

Transportation/Traffic damages and/or shortage claims are to be noted on the delivery copy of sellers shipping manifests and signed and dated below by customers authorized representatives.
No return materials will be accepted for credit without permission. The articles and/or services covered by this shipping manifest were produced in accordance with the fair labor standards act of 1938 as amended. Order accepted subject to the terms and conditions stated on the reverse side.

Page 1

5	1,455	1,380	LB
	660	626	KG
		102	PC
TOTALS			

CUSTOMER ACKNOWLEDGEMENT OF GOODS DELIVERED AND CONDITION

DATE OF DELIVERY

DRIVER

SIGNATURE ALUMINUM CANADA

1850 CLEMENTS RD
PICKERING, ON L1W 3R8

Cert Date	Cert No.	Sales Order	Page
08/05/2012	5287605	106320	1
Cust PO	B/L No.	Lot	Date
17283	007109	814268	08/19/12

Sold To		Ship To	
46024 DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 CANADA		46024 DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 CANADA	
Item No	Part No	Item Description	Cust Part
001	DAA-897105-3	100" MILL 6061 T6	D2500-1-100
Gross Weight	1,455 LBS		
Net Qty	1,380 LBS		
Specification	AMS-QQ-A-200/8 & ASTM B221-08		
		102 PCS ✓	5 PKGS
		Die Desc	

Mechanical Tests:

Tensile	Yield	% Elongation	Conductivity	HRE
MPA / KSI	MPA / KSI			
316.6 / 45.9	289.0 / 41.9	11.8	N/A	93

Chemical Analysis:

SI	FE	CU	MN	MG	CR	ZN	TI	V
0.61	0.29	0.22	0.06	0.87	0.06	0.05	0.02	0.01

This will certify that the material described herein has been inspected and tested in accordance with Signature Aluminum Canada's standard sampling and testing procedures or in accordance with the requirements of any specification forming a part of the material description to the extent indicated herein. Data of chemical composition for the material and test results from samples representative of the material are set forth above hereof or in any attachments hereto. This information shows that the material meets the applicable requirements. Inspection and test records are maintained on file. This certificate shall be deemed apart of and subject to the terms and conditions of warranty set forth on the reverse side of our order acknowledgement form. No other warranties are applicable.

S. Mazzotta, Director of Quality Signature Aluminum Canada Inc

07 08/19/12

Shippers No: 007109

**From: SIGNATURE ALUMINUM CANADA
1850 CLEMENTS ROAD
PICKERING ON L1W 3R8**

- 0 - 3 4 - 7 - 4 - PER S 192 - EST

223 AIAA JOURNAL OF SPACE AND RACE

Subject to the class locations and tariffs in effect on the date of issue of this Original Bill of Lading, or received, subject to the Rules for the Carriage of Express and Non-Express Freight Traffic and tariffs in effect on the date of issue of this Original Shipping Contract, Bill of Lading, goods described below, in apparent good order except as noted, terms and conditions of carriage shown on marked consignment label and as stated below, on said Company's agrees to carry to its usual place of delivery at said destination for its road, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed that if such carrier or any of said goods over all or any portion of said route to destination, and as to each party at any time interested in all or any of said goods, that every service to be performed hereunder shall be subject to the terms and conditions which are hereby incorporated by reference and have the same force and effect as if the same were severally fully and specifically set forth herein.

1. *Interway Traffic Light Regulations*, 2007, s. 158, August 14, 1981, passage of the National Transportation Act, 1967, which gave the Minister of Transport the authority to make regulations governing any and all goods carried by motor carrier.

2. At the fall of 1981, the Water Carrier Act provided in its title of Rules and Regulations when said goods are carried by a water carrier or

3. of this bill, being set forth as prescribed by the relevant laws, classification, statistics and regulations pertaining to motor carrier's services when said goods are carried throughout by a motor carrier or

4. the bill of lading in Canada as by C.O.C. 47-85 of January 18, 1958 when said goods or goods in Quebec are to be carried by a motor carrier.

5. or approved by the Board of Transport Commissioners for Canada by General Order No. T-143, set forth in the Rules for the Carriage of Express and Non-Carriage Freight Traffic and a general statement of express and freight stations and express and freight offices upon request, when said goods are carried by a rail carrier, and which are agreed to by the proper and accepted for himself and his assigns.

Remarque : sous réserve des classifications et tarifs en vigueur à la date de livraison, de ce document original, ou sous réserve des règlements régissant le transport des marchandises et marchandises de détail et des tarifs en vigueur à la date de livraison de ce contrat de transport, nous reconnaissons que les marchandises désignées ci-dessous, appartenant en bon état, sauf les remarques contenues au présent et au verso de ce contrat, sont livrées intactes, non endommagées et conformes à ce qui est indiqué, et que la Compagnie s'engage à transporter à destination à son lieu habituel de livraison, pourvu que telle destination soit sur son parcours, dans les délais et sous réserve de l'absence de telle destination. Il est de plus convenu que tout vol ou endommagement subi par les marchandises pendant le transport, par suite de la négligence ou de la faute de la Compagnie, sera indemnisé par la Compagnie, à moins que la Compagnie ne prouve qu'elle n'est pas responsable de l'endommagement ou du vol. Les marchandises livrées par la Compagnie sont livrées sous réserve de l'absence de telle destination, et la Compagnie n'est pas responsable de l'endommagement ou du vol des marchandises livrées par la Compagnie, à moins que la Compagnie ne prouve qu'elle n'est pas responsable de l'endommagement ou du vol.

1. Le Règlement sur la réglementation de l'égard du transport international de marchandises (RCR/91-222, 1991) adoptée en vertu de la loi de 1987 sur les transports nationaux.

2 du contrat de transport maritime, conformément aux dispositions et règlements énoncés dans les tarifs s'appliquant au transport par eau ou

3. du contenu technique prescrit par les plans, les spécifications, les statuts et règlements se rapportant aux services de camionnage; les données matérielles sont transportées par camion; ou

1. du commerce selon l'annexe 2 du Décret 47-85 du 12 janvier 1988, 2. les marchands se sont exilés de la province de Québec car, même si, comme on le sait, l'immigration n'est pas libre, 3. les membres de la Commission d'immigration des immigrants de la Société d'immigration de la province de Québec.

1. L'appréciation par l'ordonnance générale No. 743 de la Commission canadienne des transports pour le Canada régissant le transport des passagers et marchandises de détail et dont le texte peut être consulté sur le site Web des transports du Canada (<http://www.tc.gc.ca/eng/transportation-canada/index-eng.htm>) s'applique aux passagers et aux marchandises de détail, à savoir les passagers et les marchandises de détail, et non aux marchandises de détail.

Consigned To: **DART AEROSPACE LTD.**
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
CANADA

S/O: 106320
Freight: Prepaid

No		LTL	Haz	Net	Tare	Gross
<u>Pkgs</u>	<u>Description Of Articles</u>	<u>Cls</u>	<u>Mat</u>	<u>Kgs</u>	<u>Kgs</u>	<u>Kgs</u>
6	Aluminum Lineal Shapes; Item 13515-A	60		1,127	39	1,166

6	TOTAL	1,127	39	1,166
---	-------	-------	----	-------

Shipper, Per J1DOLLIN
SIGNATURE ALUMINUM CANADA
1850 CLEMENTS ROAD
PICKERING ON L1W 3R8

CANADA

CARRIER AGENT				CONSIGNEE / COMMODITY NAME			
DATE	D	M	Y	DATE	D	M	Y
PER. DATE				PER. DATE			

[illegible]



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO17283

Purchase Order Date 6/22/12

PO Print Date 6/22/12

Page Number 1 of 1

Order From :

VC-BON001

SIGNATURE ALUMINUM
1850 CLEMENTS ROAD
PICKERING, ON L1W 3R8
CA

Contact Name
Vendor Phone 800 563 1079
Vendor Fax 800 565 8339
Vendor Account Nbr

Buyer Chantal Lavoie
Requisition Nbr
Tax Resale Nbr 10127-2607
Terms Net 30
Currency CAD
FOB Destination-Collect

Ship To :

DART AEROSPACE LTD 1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

FAKED
CS 2/26/12
e m d

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	D2500-1-100P	Skidtube Extrusion	8/06/12 Yes	90.00 Each	Yours ppd	\$43.6450	\$3,928.0

recu 102x 8p12-f

Special Inst: EXTRUDE AS PER DWG D2500 REV. H
B86065
MATERIAL: 6061-T6 AS PER QQ-A-200/8
MINIMUM YIELD TENSILE STRENGTH
= 35 KSI
MINIMUM ULTIMATE TENSILE
STRENGTH = 38 KSI
MINIMUM ELONGATION = 8%
100" LONG
SIGNATURE ALUMINUM TOOL: #
897105
TO BE PACKED PER DSK 066
PULL TEST TO ASTM STANDARD B221
REQUIRED

PO Total: \$3,928.0

MATERIAL CERTIFICATION
REQ'D UPON DELIVERY

Change Nbr: 3

Change Date: 6/22/12

No substitution or deviation without
consent.
Certificate of Conformity or Material
Certification required **YES** NO